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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,862	01/21/2004	Dan L. Jin	14414-020001	3161
26191	7590	04/07/2005	EXAMINER	
FISH & RICHARDSON P.C. 3300 DAIN RAUSCHER PLAZA 60 SOUTH SIXTH STREET MINNEAPOLIS, MN 55402			PENG, KUO LIANG	
			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/761,862

Applicant(s)

JIN, DAN L.

Examiner

Kuo-Liang Peng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 3/19/04 IDS.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13, 15-24 and 27-29 is/are rejected.
- 7) ☒ Claim(s) 10-12, 14 and 24-26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/19/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:

Applicants should update the "STATEMENT OF RELATED CASES"

(page 1) and US Appl. No. 10/264,461 (page 13, line 12).

Appropriate correction is required.

### ***Claim Objections***

2. Claim 24 is objected to because of the following informalities:

In Claim 24 (line 1), should "23" be -- 22 --?

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international

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application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-9, 13, 15-24 and 27-29 are rejected under 35 U.S.C. 102(a),(e) as being anticipated by Tomozumi (US 2003/0183811).

Tomozumi discloses a process of reacting at least one hydrolyzable silicon substituent-containing organic non-linear molecule (chromophore), at least one hydrolyzable silicon substituent-containing matrix-forming molecule. ([0025]-[0052]) The hydrolyzable silicon substituent-containing organic non-linear molecule contains a donor, a  $\pi$ -bridge and an acceptor is described in [0064]-[0073]. The amount of the hydrolyzable silicon substituent-containing organic non-linear molecule is exemplified in Example 5. The substituent-containing matrix-forming molecule can be exemplified as the tetraalkoxysilane, (epoxy)alkoxysilanes, etc. ([0084] and [0085]-[0086]). Furthermore, a fluorinated alkoxysilane can be used for adjusting the formability and plasticity of or imparting water-repellency to the final products. ([0141] and [0143]) The fluorinated group can be 3,3,3-trifluoropropyl group. ([0143]) The process can further comprise forming a thin film coating the product obtained previously onto a substrate by spin coating, etc., followed by a poling treatment. The substrate further comprises a cladding material having a refractive index lower than that of

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the thin film coating. ([0150]-[0167] and [0174]-[0175]) The hydrolyzable silicon substituent-containing organic non-linear molecule contains trialkoxysilyl group that can be attached to the donor or the acceptor. There can be two alkoxy-silyl groups attached to the donor. Alternatively, one alkoxy-silyl group can be attached to donor and the other can be attached to acceptor. ([0073]) The composition prepared by the above process can be used for making an electro-optic device containing Mach-Zehnder modulator, etc. [0150]-[0182]

5. Claims 10-12, 14 and 25-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Tomozumi does not teach or fairly suggest a) the specific fluorinated alkoxy-silanes set forth in Claims 10-11; b) the specific molar ratio of the fluorinated alkoxy-silane to the (epoxy)alkoxy-silane set forth in Claim 12; c) the specific catalyst set forth in Claim 14; and d) the specific chromophore set forth in Claims 25-26.

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6. The two references, 10/264,461 and 10/301,978, cited in the information disclosure statement filed on March 19, 2004 have been lined through because they are not US Patent document per se. However, they have been considered.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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klp

April 1, 2005

A handwritten signature in black ink, appearing to read 'Kuo-Liang Peng', written in a cursive style.

Kuo-Liang Peng  
Primary Examiner  
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